PROTON BEAM RADIATION THERAPY

Description: Proton beam radiation therapy (PBRT) is a form of external radiation therapy in which positively charged subatomic particles, or protons, are targeted to a specific tissue mass through use of a stereotactic planning and delivery system. With this treatment, a focused dose of radiation is delivered to the target area while the surrounding healthy tissue receives minimal radiation.

The use of proton beam radiation may improve outcomes when the following conditions apply:

- Conventional treatment modalities do not provide adequate local tumor control;
- Evidence shows that local tumor response depends on the dose of radiation delivered; and
- Delivery of adequate radiation doses to the tumor is limited by the proximity of vital radiosensitive tissues or structures.

Definitions: 

Uveal tract: The vascular middle layer of the eye constituting the iris, ciliary body, and choroid.

Chordoma: A rare, malignant tumor that usually occurs in the spine and base of the skull.

Basisphenoid: Relating to the base or body of the sphenoid bone, which is a prominent, irregular, wedge-shaped bone at the base of the skull.

Chondrosarcoma: A malignant tumor composed of cartilage-producing cells.

Policy: I. Proton beam radiation therapy may be considered MEDICALLY NECESSARY in the following clinical situations:

A. Primary therapy for melanoma of the uveal tract (iris, choroid, or ciliary body), with no evidence of metastasis or
extrascleral extension, and with tumors up to 24 mm in largest diameter and 14 mm in height; **OR**

B. Postoperative therapy (with or without conventional high-energy x-rays) in patients who have undergone biopsy or partial resection of chordoma or low-grade (I or II) chondrosarcoma of the basisphenoid region (skull-base chordoma or chondrosarcoma) or cervical spine and have residual localized tumor without evidence of metastasis; **OR**

C. Treatment of central nervous system (CNS) tumors in pediatric patients (< 18 years of age). **OR**

D. Treatment of localized prostate cancer (i.e., organ-confined [T1 and T2] with no radiographic evidence of metastasis).

II. All other applications of proton beam radiation therapy are considered **INVESTIGATIVE** due to a lack of evidence demonstrating an impact on improved health outcomes. Other applications include, but are not limited to:

A. Non-small-cell lung cancer (NSCLC) at any stage or for recurrence;

B. Non-central nervous system tumors in pediatric patients (< 18 years of age);

C. Tumors of the head and neck (other than skull-based chordomas or chondrosarcomas).

**Coverage:**

Blue Cross and Blue Shield of Minnesota medical policies apply generally to all Blue Cross and Blue Plus plans and products. Benefit plans vary in coverage and some plans may not provide coverage for certain services addressed in the medical policies.

Medicaid products and some self-insured plans may have additional policies and prior authorization requirements. Receipt of benefits is subject to all terms and conditions of the member’s summary plan description (SPD). As applicable, review the provisions relating to a specific coverage determination, including exclusions and limitations. Blue Cross reserves the right to revise, update and/or add to its medical policies at any time without notice.

For Medicare NCD and/or Medicare LCD, please consult CMS or National Government Services websites.

Refer to the Pre-Certification/Pre-Authorization section of the Medical Behavioral Health Policy Manual for the full list of services, procedures, prescription drugs, and medical devices that require Pre-certification/Pre-Authorization. Note that services with specific coverage criteria may be reviewed retrospectively to determine if criteria are being met. Retrospective denial of claims may result if criteria are not met.

**Coding:**

*The following codes are included below for informational purposes only, and are subject to change without notice. Inclusion or exclusion*
of a code does not constitute or imply member coverage or provider reimbursement.

CPT:
77520 Proton treatment delivery; simple, without compensation
77522 Proton treatment delivery; simple, with compensation
77523 Proton treatment delivery; intermediate
77525 Proton treatment delivery; complex

HCPCS:
S8030 Scleral application of tantalum ring(s) for localization of lesions for proton beam therapy

Policy History:
Developed April 14, 2010

Most recent history:
Revised April 13, 2011
Revised April 11, 2012
Revised April 10, 2013
Reviewed April 9, 2014

Cross Reference:

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